

REMARKS

The examiner has requested that the specification be amended to include cross-reference to the foreign priority claim. The foreign priority claim has been inserted in the specification as requested by the examiner. Reconsideration and withdrawal of the objection to the specification is requested.

The examiner has rejected the claims under 35 USC Section 103. Reconsideration and withdrawal of the objection by the examiner in view of the amendment to the claims is respectfully requested.

The applicant submits that the interferometer as defined in amended claim 1 patentably distinguishes over Everett *et al.* in view of Mandella *et al* and requests the examiner to reconsider the rejection of previous claims 1 to 9 and claim 11.

The examiner states that the motivation of the present invention is to produce a polarization splitter that has S mode in the reference arm and P mode in the signal arm so that the device can provide specific information pertaining to the polarization state of light upon being reflected from a polarization-altering, such as birefringent-scattering, medium.

With respect, this is not the motivation of the present invention and the applicant suggests that the examiner reconsider this matter. In fact, it is the splitting of the P and S modes into the reference and signal arms that also have different propagation speeds. The motivation of the present invention is that the optical path can be equal for P mode in the fast and S mode in the slow but not the cross coupled S in the fast and P in the slow.

The essence of the present invention is that the dual condition allows the elimination of cross coupled components. As the signal from a scattering target back into a fiber is very small, the cross coupled components of a fiber optic assembly are always very large compared to the signal. It is therefore essential that this condition exists to separate the signal.

To explain this, claim 1 has been amended to specify the dual condition. As such, the scanning interferometer as recited in amended claim 1 is not disclosed by Everett *et al* when combined with Mandella *et al.* Since claims 2 through 9 are dependent upon amended claim 1, reconsideration and withdrawal of the objection to these claims is requested.

Previous claim 10 has been rewritten as new claim 10 in independent form and thus represents allowable subject matter. New claim 12 represents the embodiment wherein one or

two of the four polarization maintaining fiber ports are orientated with birefringent axes orthogonal to the other ports.

As we have introduced a fourth independent claim (claim 12), we submit herewith the excess claim fee of \$100.00 based on small entity. Please refer to the Credit Card Payment form.

Favourable reconsideration and allowance is requested.

If for any reason the Examiner is of the view that this application is not now in condition for allowance, the Examiner is requested to telephone the undersigned at 1-416-961-5000 so that an interview may be arranged to expedite allowance of this case.

Respectfully submitted,

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